

DOES *POLYGONUM PATULUM* (POLYGONACEAE) GROW IN NORTH AMERICA?

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ABSTRACT

Plants previously considered *Polygonum patulum* Bieb in California are within the range of variation of *Polygonum ramosissimum* Michx. complex. The real *Polygonum patulum* is recorded now for the first time from Alabama, Illinois, Utah and Washington, where it has occurred as a rare ruderal.

RESUMEN

Las plantas consideradas previamente *Polygonum patulum* en California se encuentran dentro del rango de variación del complejo de *Polygonum ramosissimum*. El verdadero *Polygonum patulum* es citado ahora por primera vez en Alabama, Illinois, Utah y Washington, donde ha aparecido como un ruderal raro.

The Eurasian and North African *Polygonum patulum* M. Bieb. has been listed in all standard Californian floras (e.g., Munz & Keck 1968; Hickman 1993). However, Hickman (1993) noted that the “applicability of this name to Californian plants remains uncertain.” After comparing these plants with the European specimens of *P. patulum*, we can confirm that they do not belong to this species. The Californian plants resemble *P. patulum* in having a terminal spiciform inflorescence (with the leaves in the upper part of inflorescence reduced to bracts which are shorter than the flowers they subtend) and small flowers and fruits of 2.5–3 mm, and 2.2–3 mm, respectively. However, the achenes of *P. patulum* are striate-tubercled, and the inner and outer tepals have about the same length. Plants from California have smooth to roughened achenes, and the inner tepals are evidently shorter than the outer tepals. Many of these plants are identical to some of the specimens quoted by Small when he described *P. exsertum* (Small 1894): **United States of America. Missouri:** St. Louis, Sep 1845, G. Engelmann s.n. (NY). **NEBRASKA:** Valentine, 1891, J.M. Bates s.n. (NY). Unfortunately, the protologue and the subsequent descriptions of *P. exsertum* have placed emphasis only on the much elongated late-season achenes, which are taxonomically irrelevant (e.g. Fernald 1950). The morphology of the perianth and achenes during early summer has been not explored. Consequently, *P. exsertum* has been considered by all the authors to be a synonym of *Polygonum ramosissimum* (e.g. Gleason 1952; Mertens & Raven 1965; Wolf & McNeill 1986).

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Polygonum ramosissimum is a complex species similar in that regards to *P. aviculare* (Costea & Tardif 2003). *Polygonum exsertum* and possibly other species previously synonymized with *P. ramosissimum*, may deserve taxonomic recognition as infraspecific taxa of *P. ramosissimum*. Nevertheless, further research is needed to understand the patterns of variation within *P. ramosissimum*. For the time being, it is safe to conclude that what has been considered *P. patulum* in California is within the range of *P. ramosissimum* variation.

The real *P. patulum* is a rare adventive in North America. During the preparation of the genus *Polygonum* for Flora of North America we have found only a few collections in the United States of America that can be ascribed to this taxon, and these are new floristical records. Except for *P. ramosissimum*, *P. patulum* may be mistaken only with *P. argyrocoleon* Steud. ex Kunze. The latter has smooth achenes and the terminal spiciform inflorescence is congested, dense, with cymes having 4–5 flowers. *Polygonum patulum* has striate-tubercled achenes, and the terminal inflorescence is open, with cymes having 1–4 flowers.

Typical specimens examined: **U.S.A. ALABAMA. Mobile Co.:** Mobile, adventive with ballast, Oct 1893, C. Mohr s.n. (NY). **ILLINOIS. Union Co.:** 4.3 mi S of Jonesboro, disturbed clay, rather common roadside weed, 23 Sep 1999, S.R. Hill 32090 (NY). **UTAH. Uintah Co.:** NW corner of Pelican Lake, 1250 m, in moist soil of edge of lake, 8 Aug 1983, E. Neese 14645 (NY). **WASHINGTON. Grays Harbor Co.:** Montesano, in fields, Sept 1917, J.M. Grant (NY).

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